

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number
WO 2005/069543 A1

(51) International Patent Classification⁷: **H04L 12/24**

(21) International Application Number:
PCT/KR2005/000139

(22) International Filing Date: 14 January 2005 (14.01.2005)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2004-0002980 15 January 2004 (15.01.2004) KR

(71) Applicant (for all designated States except US): **UTSTAR-COM KOREA LIMITED** [KR/KR]; San 136-1, Ami-ri, Bubal-eub Icheon-si, Kyongki-do 467-701 (KR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **LYU, Ki Sung** [KR/KR]; Hyosung Apt. 302-105, Biha-dong, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do 361-773 (KR).

(74) Agent: **YOON, Jee Hong**; Hannuri Bldg. 219 Naeja-dong, Chongno-gu, Seoul 110-053 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

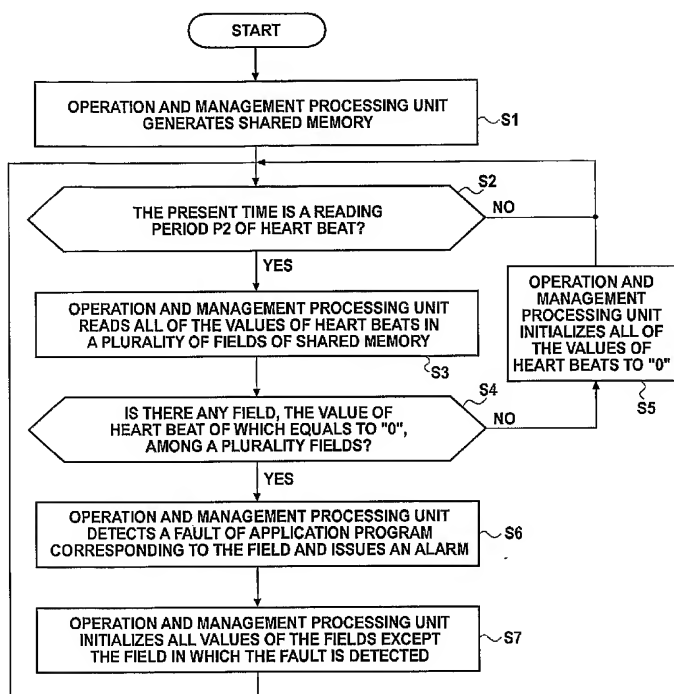
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHOD FOR SENSING FAULTS OF APPLICATION PROGRAMS IN A CDMA SYSTEM



(57) Abstract: The present invention generally relates to apparatus and method for sensing faults of application programs in a CDMA system, which comprises a shared memory comprising a plurality of fields, wherein each of the fields comprises a Heart Beat; a plurality of application programs corresponding to the plurality of fields in the shared memory on a one-to-one basis, each of which accesses to the corresponding field and increments the corresponding Heart Beat by 1 when a certain period (p1) elapses; and an operation and management processing unit which detects values of the Heart Beats of the plurality of fields in the shared memory when other certain period (p2) elapses, if all of the values of the Heart Beats equal to "1," then the operation and management processing unit initializes the values to "0" and performs normal operation, and if any of the values of the Heart Beats equals to "0," then the operation and management processing unit recognizes a fault of an application program connected to the field, the value of Heart Beat which is "0," and issues an alarm. According to the apparatus and method for sensing faults of application programs in a CDMA system of the present invention, the procedure of monitoring application programs can be simplified. This improves the efficiency of the system, compared to the conventional method, which executes the system commands repeatedly and monitors the operation status by detecting the returned value.